

State of California
Department of Fish and Wildlife

Memorandum

Date: October 6, 2022

To: Eileen Sobeck, Executive Director
State Water Resources Control Board
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From: Tina Bartlett, Regional Manager
California Department of Fish and Wildlife
Region 1 - Northern

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Subject: Presence of Central Valley Steelhead on Deer and Mill Creeks Fall 2022

Current agricultural diversion rates are resulting in insufficient stream flow downstream of Ward Dam on Mill Creek and Stanford-Vina Ranch Irrigation Company (SVRIC) Dam on Deer Creek to allow adult Central Valley (CV) steelhead (*Oncorhynchus mykiss*) (steelhead) to enter the streams, transit through impaired stream reaches, and migrate to upstream spawning habitat. In addition, under current conditions, juvenile salmonids residing in upper stream reaches will encounter extremely low stream flows and increased mortality risk if they migrate to stream reaches downstream of Ward and SVRIC Dams.

The Department of Fish and Wildlife (Department) is requesting the State Water Resources Control Board (SWRCB) to curtail diversions on Deer and Mill Creeks on October 15, 2022, to provide a minimum base flow of 50 cubic feet per second (cfs) in Deer Creek from SVRIC Dam to the Sacramento River and 50 cfs on Mill Creek from Ward Dam to the Sacramento River. This request is based on the criteria set forth in California Code of Regulations, title 23, section 876.5(c)(1)(A) for Mill Creek and section 876.5(c)(2)(A) for Deer Creek. If adult CV steelhead are present, these provisions authorize the SWRCB to curtail diversions to provide a base flow of 50 cubic-feet per second or full flow without diversions, whichever is less, between October 15 and March 31.

The Department offers the following information to the SWRCB regarding the presence CV Steelhead in the Upper Sacramento River Basin.

Central Valley Steelhead Presence

Historic Sacramento River adult steelhead trapping conducted upstream of the Feather River confluence near Knights Landing (1953-1959) shows that adult CV steelhead migrations to the Upper Sacramento River watershed begin in July and peak in late September and early October. Additional historic CV steelhead monitoring data collected at the Red Bluff Diversion Dam (RBDD) (river mile 244) show that adult CV steelhead are present in significant numbers in the Upper

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Sacramento River as early as August, with CV steelhead numbers at RBDD increasing substantially after mid-September. This historic data strongly suggests that CV steelhead would be present in the Sacramento River on or before October 15 and would enter the tributaries following the restoration of sufficient flows in Deer and Mill Creeks.

Currently the Department maintains and operates electronic fish monitoring equipment (video camera and sonar systems) at Ward and SVRIC Dams to monitor the passage of CV steelhead into Deer and Mill Creeks in near-real time. This monitoring has provided significant insight into current CV steelhead migratory patterns in Deer and Mill Creeks. Video data collected at Ward Dam between 2009 and 2020 shows that adult CV steelhead were detected as early as September 22, and between one and four days following the restoration of minimum adult fish passage flows downstream of Ward Dam.

Under current conditions, which are prohibiting CV steelhead from entering Deer and Mill Creeks, the expectation that CV steelhead would be present by October 15 in 2022 is informed by auxiliary steelhead monitoring conducted by the Department in the mainstem Sacramento River and its tributaries. The Department currently operates multiple fyke traps on the Sacramento River between river miles 74.6-78.5 near Knights Landing. The purpose of the fyke traps is to capture and tag adult CV steelhead migrating upstream through the Sacramento River for estimating population abundance and life history information. For the period August 15, 2022, through September 23, 2022, a total of four CV steelhead have been captured in the fyke traps.

The Department operates video monitoring equipment on Clear and Battle Creeks, Sacramento River tributaries located upstream of Deer and Mill Creeks. Flows in Battle and Clear Creeks are sufficient for steelhead passage year-round. In 2022, the Department has been monitoring CV steelhead passage on Clear Creek since August 15 and on Battle Creek since August 18. Clear and Battle Creek video review has been completed through September 19, 2022. A total of 3 CV steelhead have entered Clear Creek, and a total of 3 CV steelhead have entered Battle Creek during this period.

Based on relevant current and historic steelhead monitoring data described in this memorandum, the Department believes Mill and Deer Creek steelhead are present in the Sacramento River and other Upper Sacramento River tributaries, and that restoration and maintenance of a 50 cfs minimum base flow on October 15 downstream of Ward and SVRIC Dams is necessary to protect this species.

If you have any questions, please contact the Department's acting Northern Region Fisheries Program Manager, Michael Harris at (530) 410-5334 and Michael.R.Harris@wildlife.ca.gov.

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